

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1986:6843 CAPLUS  
 DN 104:6843  
 ED Entered STN: 11 Jan 1986  
 TI Fogging-resistant transparent articles  
 IN Matsuzaki, Yasuo  
 PA Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08J007-06  
 ICS B29C071-04; C08J007-12  
 CC 38-3 (Plastics Fabrication and Uses)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60141727	A2	19850726	JP 1983-248985	19831228 <--
PRAI	JP 1983-248985		19831228		

AB Fogging-resistant transparent articles are prepared by treating plastic articles with plasma at low temperature, saponifying with a strong alkali solution, and coating with a surfactant. Thus, a 0.6-mm poly(ethylene terephthalate) [25038-59-9] transparent film was plasma-treated in an Ar-N atmospheric for 1 min, immersed in 1% NaOH aqueous solution for 2 h and in 5% aqueous solution of Quaternary ammonium compounds for 1 h, and dried.

ST polyethylene terephthalate film fogging resistance; plasma treatment polyethylene terephthalate film; surfactant treatment polyethylene terephthalate film; sodium hydroxide treatment polyester film

IT Antifogging agents  
 (cationic surfactants, for plastic films treated with plasma and alkali solution)

IT Polycarbonates  
 RL: USES (Uses)  
 (films, plasma-, alkali aqueous solution- and cationic surfactant-treated, transparent, fogging-resistant)

IT Plastics, film  
 RL: USES (Uses)  
 (plasma-, alkali aqueous solution- and cationic surfactant-treated, transparent, fogging-resistant)

IT Quaternary ammonium compounds, uses and miscellaneous  
 RL: USES (Uses)  
 (surfactants, plastic films treated with, transparent, fogging-resistant)

IT Plasma, chemical and physical effects  
 (treatment by, of plastic films, for improved fogging resistance)

IT Surfactants  
 (cationic, antifogging agents, for plastic films treated with plasma and alkali solution)

IT 1310-58-3, uses and miscellaneous 1310-73-2, uses and miscellaneous  
 RL: USES (Uses)  
 (aqueous solution, plastic films treated with, transparent, fogging-resistant)

IT 24937-78-8 25038-54-4, uses and miscellaneous 25038-59-9, uses and miscellaneous  
 RL: USES (Uses)  
 (films, plasma-, alkali aqueous solution- and cationic surfactant-treated, transparent, fogging-resistant)

IT 56-81-5, uses and miscellaneous  
 RL: USES (Uses)  
 (sodium hydroxide aqueous solution containing, plastic films treated with, transparent, fogging-resistant)

RN 1310-58-3

RN 1310-73-2  
RN 24937-78-8  
RN 25038-54-4  
RN 25038-59-9  
RN 56-81-5

L8 ANSWER 2 OF 3 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1986-037824 [06] WPIDS

DNC C1986-015845

TI Clouding-resistant transparent plastics preparation - by low temperature plasma treating plastic surface, saponifying with strong alkaline solution and coating with surfactant.

DC A35

PA (MATS-I) MATSUZAKI Y

CYC 1

PI JP 60141727 A 19850726 (198606)\* 4p <--

ADT JP 60141727 A JP 1983-248985 19831228

PRAI JP 1983-248985 19831228

IC B29C071-04; C08J007-06

AB JP 60141727 A UPAB: 19930922

The surface of a transparent plastic is first low temperature-plasma treated, and then saponified with strong alkaline solution and then coated with surfactant. Transparent plastics are pref. polyesters, polycarbonates, polyamides, polyacrylates, polymethacrylates, polyolefins and polyvinyl chlorides. Examples of strong alkaline solns. are alkali metal or alkaline earth metal oxide or hydroxide such as NaOH, KOH, LiOH, calcium hydroxide or barium hydroxide, or their mixts. The surfactant is pref. a nonionic fluorine-containing surfactant.

USE/ADVANTAGE - Surface hardness, transparency and cloud-resistance are good. Used as eye glasses, mirrors, etc..

In an example, a transparent polyester film (polyethylene terephthalate, 0.6mm thick) was plasma-treated for 1 minute. This was dipped in 1% -NaOH solution at 50 deg.C for 2 hours, and after washing with water and drying, dipped in a 5% -Coatamine aqueous solution (cationic surfactant) at 50 deg.C for 1 hour and then dried with air.

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FS CPI

FA AB

MC CPI: A08-S08; A09-A02; A10-E09; A11-C04B2; A11-C04E; A12-L03

L8 ANSWER 3 OF 3 JAPIO (C) 2004 JPO on STN

AN 1985-141727 JAPIO

TI MANUFACTURE OF ANTIFOGGING TRANSPARENT PRODUCT

IN MATSUZAKI YASUO

PA MATSUZAKI YASUO

PI JP 60141727 A 19850726 Showa

AI JP 1983-248985 (JP58248985 Showa) 19831228

PRAI JP 1983-248985 19831228

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1985

IC ICM C08J007-06

ICS B29C071-04; C08J007-12

AB PURPOSE: To obtain a transparent product provided with high antifogging potential without impairing its inherent characteristics, by performing low-temperature plasma treatment of the surface of a plastic followed by saponification of the surface with a strong alkali and furthermore, coating on it a surfactant.

CONSTITUTION: The surface of a transparent plastic is subjected to low-temperature plasma treatment followed by saponification of the resulting with a strong alkaline solution and furthermore, coating on it a surfactant, thus obtaining the objective product. Said plastic is e.g. of polyester, polycarbonate, polyamide, polyolefin. The alkaline solution is pref. a 0.1~5% aqueous solution of combination of NaOH and KOH with the molar ratio 1/1~9/1. A nonionic fluorine-based surfactant is pref. used.